

## Replacement Instructions

# hp StorageWorks SFP Transceiver

*These instructions apply to the MSA1000 product family. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.*



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:

<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:

[http://customerops.corp.hp.com/1sw/pdm\\_om/warranty\\_support/policies/2330100.doc](http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc)

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The information contained on these replacement instructions is subject to change without notice. The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

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## About this document

This document details the procedures for replacing a failed SFP Transceiver in HP StorageWorks Modular Smart Array (MSA) storage systems.

## Verifying component failure

Before replacing the SFP transceiver, use the following methods to verify the component failure.

- Check the controller LCD for one of the error messages listed in Table 1.
- If both the 1G and 2G LEDs on the Fibre Channel board are not lit, the SFP may be faulty.

Table 1: LCD Error Messages

No.	Message
515	FIBRE DEVICE HARDWARE FAILURE
516	FIBRE SUBSYSTEM LINK FAILURE

## Before you begin

Read the following cautions and information before beginning removal and replacement procedures.



**Caution:** Be sure the replacement part is available before removing the failed component.



**Caution:** Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.



**Caution:** It is important to follow these instructions when replacing components in the MSA. If the procedure is done improperly, it is possible to lose data or damage equipment.



**WARNING:** To reduce the risk of injury from laser radiation or damage to the equipment, observe the following precautions:

- Do not open any panels, operate controls, make adjustments, or perform procedures to a laser device other than those specified herein.
- Do not stare into the laser beam when panels are open.

**Note:** Before replacing the SFP transceiver it is important to stop all system access (for example: application, system I/O, or RAW device file path/s) to the device.

## Step 1: Removing the SFP transceiver



**WARNING:** To reduce the risk of injury from laser radiation or damage to the equipment, observe the following precautions:

- Do not open any panels, operate controls, make adjustments, or perform procedures to a laser device other than those specified herein.
- Do not stare into the laser beam when panels are open.

1. Press the release clip on the bottom of the cable connector ❶ to remove the Fibre Channel cable from the back of the failed transceiver.
2. Pull the transceiver out of the device by pulling up and out on the plastic tab ❷.

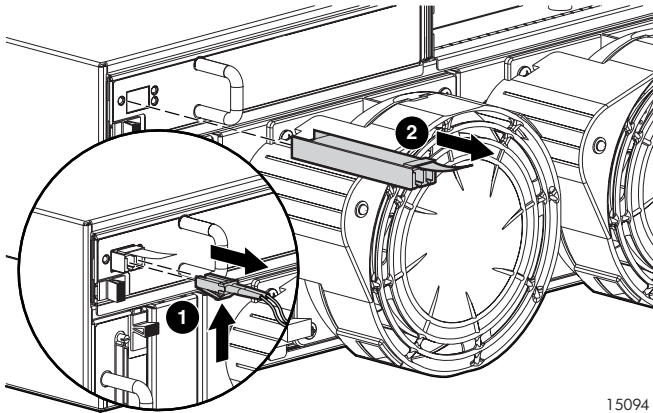


Figure 1: Removing the SFP transceiver



**Caution:** Touching the end of a fibre cable damages the cable. Whenever a fibre cable is not connected, replace the protective covers on the ends of the cables.

## Step 2: Installing the SFP transceiver

Insert the new SFP transceiver into the controller component and replace the Fibre Channel cable.



**Caution:** To reduce the risk of damage to the equipment, do not use excessive force when inserting the transceiver.

Installation is complete.

## Verifying the replacement

After replacing the failed SFP transceiver:

- No new error messages should be displayed on the LCD. Unread error log messages may cause the LED to remain lit. Be sure all error messages that have been responded to are deleted.
- Both the 1G and 2G LEDs on the Fibre Channel board should be lit.

## Returning the failed component

Please follow the return instructions provided in the new component package.

## Additional information

For additional information, refer to the MSA technical documents web site at <http://www.hp.com/go/msa1000>.